



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/777,958	12/24/1996	DONALD F. HAMILTON	02103/211002	4029

26161 7590 03/24/2003

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

[REDACTED] EXAMINER

LEE, PING

ART UNIT	PAPER NUMBER
2644	123

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	08/777,958	HAMILTON ET AL.	
	Examiner	Art Unit	
	Ping Lee	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10/28/02

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by "BAZOOKA Bass Tubes" ("Car Audio and Electronics").

It is noticed that the current invention as specified in the claims does not require the low frequency speaker being operational. Based on this interpretation, the claims are being rejected under 103 rejection in paragraph 5 below.

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claim 1, on the lower half of p. 41, a vehicle (sedan) is shown. A low frequency speaker (Bazooka woofers) is being disposed within the trunk of the vehicle clear of the rear deck, above the trunk floor and outside the spare tire compartment. Although not explicitly discussed, the sedan (Honda Accord, Toyota Camry, Nissan Pulsa, Nissan 200SX, BMW or Mercedes) inherently includes a spare tire compartment, a trunk floor, a dividing portion and a rear deck.

Regarding claims 5 and 10, the limitation of these claims are not functionally related to the limitation in claims 1 and 6 since the claims never specify that the claimed

frequency responses are caused by the woofer being placed in the trunk, not mounted on the rear deck as disclosed in the specification as originally filed as the prior art. With the low frequency speaker disposed in the trunk as shown on p. 41, not conventionally mounted on the rear deck, the claimed frequency responses are inherently met (as discussed on p. 1 of the specification, the low frequency speaker mounted on the rear deck will cause a hole between 60-80 Hz for the front seat, and a hole between 80-100 Hz for the back seat).

Regarding claims 2, 3, 7 and 8, the low frequency speaker is disposed in a rearward section of the trunk ("The Bazooka woofers can be directed into the rearmost corner of the trunk(shown), or they can be located directly behind the back seat, whichever is preferable") and is disposed in a rear trunk corner at the rear of the vehicle (as shown in the diagram).

Regarding claims 4 and 9, as shown on p. 41, the low frequency speaker is mounted in an enclosure.

Regarding claim 6, as shown on p. 41, the rear deck is free of speaker holes when the low frequency speaker is placed on the trunk floor.

3. Claims 1, 2, 4-7, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziffer ("Pursuit of Perfection" by "Car Audio and Electronics").

It is noticed that the current invention as specified in the claims does not require the low frequency speaker being operational. Based on this interpretation, the claims are being rejected under 103 rejection in paragraph 6 below.

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claim 1, a vehicle (sedan) is shown on pps. 46-48. A low frequency speaker (Bazooka Bass Tubes) is being disposed within the trunk of the vehicle clear of the rear deck, above the trunk floor and outside the spare tire compartment. Although not explicitly discussed, the vehicle inherently includes a spare tire compartment, a trunk floor, a dividing portion and a rear deck.

Regarding claims 5 and 10, the limitation of these claims are not functionally related to the limitation in claims 1 and 6 since the claims never specify that the claimed frequency responses are caused by the woofer being placed in the trunk, not conventionally mounted on the rear deck as disclosed in the specification as originally filed. With the low frequency speaker is disposed in the trunk as shown on p. 48, not conventionally mounted on the rear deck, the claimed frequency responses are inherently met (as discussed on p. 1 of the specification, the low frequency speaker mounted on the rear deck will cause a hole between 60-80 Hz for the front seat, and a hole between 80-100 Hz for the back seat).

Regarding claims 2 and 7, the low frequency speaker is disposed in a rearward section of the trunk (the top picture on p. 48 shows the speaker is disposed on the rearward section of the trunk when one opens the trunk hood and view the speaker from the rear of the vehicle).

Regarding claims 4 and 9, as shown on p. 48, the low frequency speaker is mounted in an enclosure.

Regarding claim 6, as shown on p. 48, the rear deck is free of low frequency speaker holes when the low frequency speaker is placed on the trunk floor. As discussed by the entire article, no speaker is being mounted on the rear deck.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over "BAZOOKA Bass Tubes" ("Car Audio and Electronics").

It is noticed by the examiner, the current invention as specified in claims 1-10 does not require an audio input signal. Therefore, the limitation of the claims will also be met when someone purchases a woofer from a store and place it above the trunk floor. It would have been obvious to one of ordinary skill in the art to hide a purchased low frequency speaker within the trunk, above the trunk floor, outside of the spare tire compartment, just like placing a luggage in order to reduce the chance of being stolen.

6. Claims 1, 2, 4-7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer.

It is noticed by the examiner, the current invention as specified in claims 1, 2, 4-7, 9 and 10 does not require an audio input signal. Therefore, the limitation of the claims will also be met when someone purchases a woofer from a store and place it

above the trunk floor. It would have been obvious to one of ordinary skill in the art to hide a purchased low frequency speaker within the trunk, above the trunk floor, outside of the spare tire compartment, just like placing a luggage in order to reduce the chance of being stolen.

7. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer in view of van Rijsbergen or "BAZOOKA Bass Tubes" ("Car Audio and Electronics").

Assuming that the low frequency speaker is operational, the claims limitation are met in view of the discussion below.

Regarding claims 3 and 8, Ziffer fails to show the low frequency speaker being disposed in the rear trunk corner at the rear of the vehicle. However, such a modification would have been an obvious design choice of the audio system installer without altering the overall sound quality.

As taught by van Rijsbergen, "bass tone will travel through the car readily", so the "placement of the low range speakers can be quite flexible", and one can use his/her "imagination a little and find a place for woofers which would not otherwise fit in conventional mounting positions" (p. 21). Ziffer discloses a custom fit/design audio system for a vehicle. The audio system installer would place the low frequency speaker at the location with minimal compromise of trunk space (p. 48), and as approved by the owner of the vehicle. By placing the low frequency speaker at the trunk corner at the rear of the vehicle, one skilled in the art would have expected that more space would be

available behind the back seat, so the user could place luggage, articles, boxes, or other infrequently used objects below the rear deck.

The other article ("BAZOOKA Bass Tubes") also teaches that the bass tube can be placed either behind the back seat or at the rear corner of trunk at the rear of the vehicle (as shown) depending on the preference.

Thus, it would have been obvious to one of ordinary skill in the art to modify the audio system as disclosed by Ziffer in view of van Rijsbergen or "BAZOOKA Bass Tubes" by locating the low frequency speaker at the rear trunk corner at the rear of the vehicle in order to provide more trunk space behind the back seat.

Furthermore, applicant discloses that any rear remote area of the trunk would be acceptable location for the low frequency speaker, and without specifying the reason to locate the speaker at the rear corner of the trunk of the rear of the vehicle other than a preference.

Shifting the location of the low frequency speaker in order to save trunk space and depending on preference is not a patentable invention. It merely involves common sense and/or mechanical skill in order to save space and/or better suit the preference of the user of the vehicle. Thus, it has been held to be within the general skill of a worker in the art to rearrange the location of the low frequency speaker as a matter of design choice. *In re Japikse*, 86 USPQ 70.

Response to Arguments

8. Applicant's arguments filed 10/21/02 have been fully considered but they are not persuasive.

- a. Applicant argued that examiner does not have the authority to reopen the prosecution.

As indicated in the last office, the director of TC2600 has authorized the reopening. See MPEP section 1214.04 and 1002.02(c).

- b. Applicant further argued that the reference "BAZOOKA Bass Tubes" fails to show the low frequency speaker being disposed in the trunk as claimed in claim 1.

As shown in the lowest figure, the low frequency speaker (bass tube) is being placed within the trunk at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle. Specifically, part of the speaker is in the trunk rear.

- c. Applicant further argued that the claimed speaker occupying negligible useful trunk volume by stating that the bass tube is large.

It is noticed that the reference "BAZOOKA Bass Tubes" never specify that the tube is large. By placing the tube as shown in the lowest figure of p. 41, the tube occupies negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with the speaker mounted in the deck.

- d. Applicant argued that the reference "BAZOOKA Bass Tubes" never specify that the frequency response as specified in claims 5 and 10.

By analyzing claims 5 and 10, the limitations of these claims are not functionally related to the limitation of claims 1 and 6. In the specification, applicant defined the frequency response of a prior art system with the low frequency speaker being mounted on the rear deck. Since the reference "BAZOOKA Bass Tubes" shows the low frequency speaker not being mounted on the rear deck, the claimed frequency responses are inherently met.

e. Applicant argued that the reference "BAZOOKA Bass Tubes" fails to show that the rear deck is being free of speaker holes as required in claims 6-10.

As shown in the lowest figure of p. 41, the reference shows the rear seat of a sedan, the bass tubes and the trunk. The figure does not show any hole in the rear deck. Furthermore, with the low frequency speaker being placed in the trunk as illustrated, what is the purpose of drilling a hole in the rear deck to place the low frequency speaker?

f. Applicant argued that Ziffer fails to show the low frequency speaker being disposed in the rearward section of the trunk, occupying negligible useful trunk volume, the claimed frequency characteristics and the rear deck free of speaker holes.

As shown in the two uppermost figures on p. 48, the tube is being placed in the rearward section of the trunk. When one opens the trunk, the inner most section toward the passenger compartment is the rearward section of the trunk. By placing the tube as shown in the uppermost figure of p. 48, the tube occupies negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with the

speaker mounted in the deck. By analyzing claims 5 and 10, the limitations of these claims are not functionally related to the limitation of claims 1 and 6. In the specification, applicant defined the frequency response of a prior art system with the low frequency speaker being mounted on the rear deck. Since Ziffer shows the low frequency speaker not being mounted on the rear deck, the claimed frequency responses are inherently met. On p. 49, Ziffer discloses all the speaker locations. No speaker is being mounted on the rear deck. Therefore, the rear deck is inherently free of speaker hole.

g. Applicant argued that there is no suggestion in the reference ("BAZOOKA Bass Tubes" or Ziffer) to modify the invention for 103 rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is the knowledge generally available to one of ordinary skill in the art to suggest the modification of placing the unconnected speakers (no audio signal being applied) into the trunk to prevent theft.

h. Applicant argued that it is impossible to put large BAZOOKA bass speakers in the rear trunk corner (referring to 103 rejection under paragraph 8 in the last office action).

As shown in the reference "BAZOOKA Bass Tubes", it is possible to place the bass tube at the trunk rear as specified in the claim.

i. Applicant argued that there is no suggestion in the reference ("BAZOOKA Bass Tubes" or van Rijssbergen) to modify the invention for 103 rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, van Rijssbergen teaches that it is a matter of preference (use his/her imagination) to place the low frequency speaker in the car. The other reference ("BAZOOKA Bass Tubes") also teaches that it is the designer the preference to place the speaker at the specific location. Thus, it would have been obvious to one of ordinary skill in the art to modify Ziffer in view of van Rijssbergen or "BAZOOKA Bass Tubes" to place the speaker at a specific location depending on one's preference.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Tuesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.



PINGLEE
PRIMARY EXAMINER

pwl 
February 25, 2003